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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,153	07/25/2006	Josef Artelsmair	ARTELSMAIR ET AL 8 PCT	4970

25889 7590 09/08/2011

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EXAMINER	
DANG, KET D	

ART UNIT	PAPER NUMBER
3742	

MAIL DATE	DELIVERY MODE
09/08/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,153	ARTELSMAIR ET AL.	
	Examiner	Art Unit	
	KET D. DANG	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 June 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *2-6* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *2-6* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *25 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to the Arguments/Remarks filed on June 6, 2011. No claims have been amended, no claims have been cancelled and no new claims have been added. Thus, claims 2-6 are presently pending in this application.

Response to Arguments

2. Applicant's arguments filed June 6, 2011 have been fully considered but they are not persuasive.

Applicant argues on page 3 of the Arguments/Remarks that Parmelee et al. fails to disclose or suggest a welding wire storage device for storing small amounts of welding wire. Examiner agrees with the argument. However, as discussed in the previous Office Action or see below, Mukai et al. who discloses a welding wire storage device for a welding system (see figure 1 or see annotated figure 3A-C below), not Parmelee et al.

Applicant also argues on pages 4-5 of the Arguments/Remarks that Yamada et al.'s invention is a totally different from a welding wire storage device as the instant invention. Examiner disagrees with this argument. In response to applicant's argument that Yamada et al.'s invention is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re*

Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Applicant claims a measuring means for detecting deflection of the wire core as claimed in claim 6. Yamada et al.'s invention is about an automatic wire feeder of a wire electric discharge machine using an optical sensor for detecting the deflection of a wire. Yamada et al.'s invention is applicable or relevant to the welding wire process with the same field of endeavor as the instant invention, i.e. to use some measuring means to detect the deflection of a wire or a welding wire. Even if it is not in the same field of endeavor, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Furthermore, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukai et al. (US Pub. No. 20040011776 A1) in view of Parmelee et al. (US 4,731,518) and Yamada et al. (US Pub. No. 20030010753 A1).

Regarding claim 6, Mukai et al. discloses a welding wire storage device for a welding system (see figure 1) comprising: a housing 3 (fig. 3A) (see figures 3A below for the indication of a housing) having a free space, a first end region 5 (fig. 1) and a second end region 6 (fig. 1) opposite the first end region (para. 0050-0051); a welding wire 1 (fig. 1) arcuately arranged to lie freely in the free space of the housing; a guide element on the second end region 6 (fig. 1) (para. 0020); and first 5 (fig. 1) and second 6 (fig. 1) coupling mechanisms arranged on the housing (para. 0020, 0021, 0046-0047).

With respect to claim 3, Mukai et al. discloses wherein elements for delimiting maximum deflection of the welding wire 1 are arranged in the housing 3 (fig. 3A) (para. 0019, 0031).

With respect to claim 4, Mukai et al. discloses wherein an element for fastening 14 (fig. 2) a hose pack 3 (fig. 1) is arranged on an opposite side of the free space of the housing (para. 0031-0032).

With respect to claim 5, Mukai et al. discloses wherein the housing (see fig. 3A below) is arranged between a welding apparatus or wire feeder 2 (fig. 1) and a welding torch 4 (fig. 1), wherein a hose pack 3 (fig. 1) is arranged directly, without interruption, between the welding apparatus or wire feeder and the welding torch, and wherein the wire core is interrupted in the housing 3 (fig. 3A) (para. 0012).

Mukai et al. discloses all of the limitations of the claimed invention as set forth above, except for a wire core and a wire guide hose for the wire core; and a measuring device for detecting deflection of the welding wire.

However, a wire core and a wire guide hose for the wire core are known in the art. Parmelee et al., for example, teaches a wire core 100 (fig. 14, i.e. electrode guide) and a wire guide hose 200/202 (fig. 14) for the wire core (col.4, lines 50-56; col. 6, lines 27-33). Parmelee et al. further teaches such a configuration provides a means to improved arrangement for insuring that the electrode is electrically energized at a predetermined and consistent distance from the end of the contact tip (col. 3, lines 2-4) and to provide a smooth passage for the movement of electrode E therethrough (col. 5, lines 33-34).

Similarly, a measuring device for detecting deflection of the welding wire is known in the art. Yamada et al., for example, teaches a measuring device 100 (fig. 1, i.e. the optical sensor) for detecting deflection of the welding wire 1 (fig. 1) (abstract; para. 0022 and 0030). Yamada et al. further teaches such a configuration provides a means to detect positional information of a wire electrode in an inserting passage between a feed roller for feeding a wire electrode and an upper wire guide; and a control unit for discriminating a state of vibration or deflection of the wire electrode according to the positional information detected by the optical sensor and also for controlling a feeding and rewinding motion of the feed roller according to a quantity of deflection of the wire electrode (para. 0010).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Mukai et al. with a wire core and a wire guide hose for the wire core of Parmelee et al. in order to improved arrangement for insuring that the electrode is electrically energized at a predetermined and consistent distance from the end of the contact tip and to provide a smooth passage for the movement of electrode E therethrough. Similarly, it would have been obvious to one of ordinary skill in the art to modify Mukai et al. in view of Parmelee et al. with a measuring device for detecting deflection of the welding wire of Yamada et al. in order to detect positional information of a wire electrode in an inserting passage between a feed roller for feeding a wire electrode and an upper wire guide; and a control unit for discriminating a state of vibration or deflection of the wire electrode according to the positional information detected by the optical sensor and also for controlling a feeding and rewinding motion of the feed roller according to a quantity of deflection of the wire electrode.

Fig. 3A

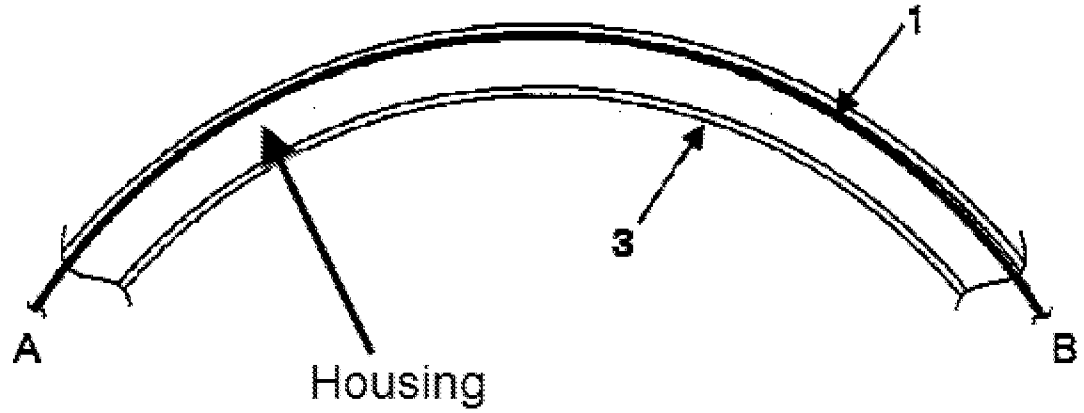


Fig. 3B

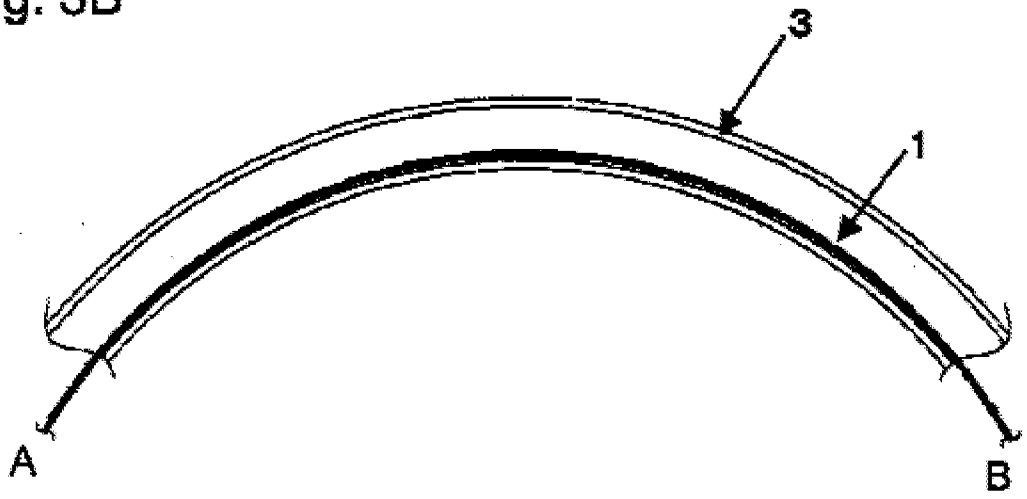
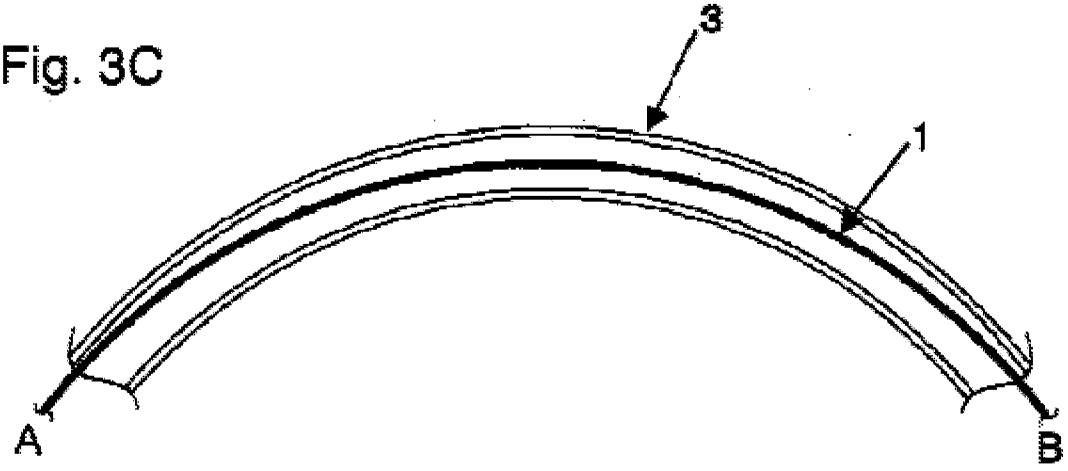


Fig. 3C



5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mukai et al. (US Pub. No. 20040011776 A1) in view of Parmelee et al. (US 4,731,518), and Yamada et al. (US Pub. No. 20030010753 A1) as applied to claims 3-6 above, and further in view of Benfield (US 3594534).

Regarding claim 2, Mukai et al. in view of Parmelee and Yamada et al. disclose all of the limitations of the claimed invention as set forth above, except for a quick-lock.

However, a quick-lock is known in the art. Benfield, for example, teaches a quick-lock 51 (fig. 2) (col. 2, lines 43-65, i.e. the locking mechanism (51) is designed to adapt and coupling with the lower portion (52) so that the welding wire may extended). Benfield further teaches such a configuration provides a means to secure to join piece parts and reliable attaching to welding unit and quickly removed when not in use (col. 1, lines 40-50). It would have been obvious to one of ordinary skill in the art to modify Mukai et al. in view of Parmelee et al., and Yamada et al. with a quick-lock of Benfield in order to secure to join piece parts and reliable attaching to welding unit and quickly removed when not in use.

Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rigdon et al. (US 6,066,833) teaches a wire buffer 507a (fig. 27).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET D. DANG whose telephone number is (571)270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Tu can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KET D. DANG/
Examiner, Art Unit 3742
September 1, 2011

/Henry Yuen/
Supervisory Patent Examiner, Art Unit 3742